

NEW DATA TO THE BALANIDA-FAUNA OF THE BURDIGALIEN OF KARAKUM

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In a former enumeration (1) author gave account of the *Balanida*-fauna of the Burdigalien of the Karakum-desert. Author's inaugural in the Academy discussed the stratigraphic, faciologic and phylogenetic aspects of the problem. In the periodical Acta Biol. Szeged 7 (1—2) a new subspecies (*Balanus amphitrite karakumiensis*; Table I. Fig. 4. and Table II. Fig. e—g) and a new species (*Balanus provisoricus*; Table I. Fig. 2 and Table II. Fig. a—b) were described. In the course of the further investigations a new form and two forms not demonstrated till now were found. These are making known in this article. Here by terminates the publication of this *Balanida*-fauna. Publication of this material means priority, because from this area fossilia of this sort are not yet described.

The documentum-material of the new species and subspecies and the 50 per cent of the relics of the other species are stored in the Institute for Systematic Zoology of the University Szeged with the kind approval of the collector and deliverer: Dr. MERKLIN, paleontologist of Moscow.

The material was collected by Dr. MERKLIN in summer 1959 in the course of the paleontological expedition in the environs of the Caspian and Aral lake directed by him. Author accepted the material personally in winter 1959.

Complete enumeration of the species collected is enclosed on the end of the article.

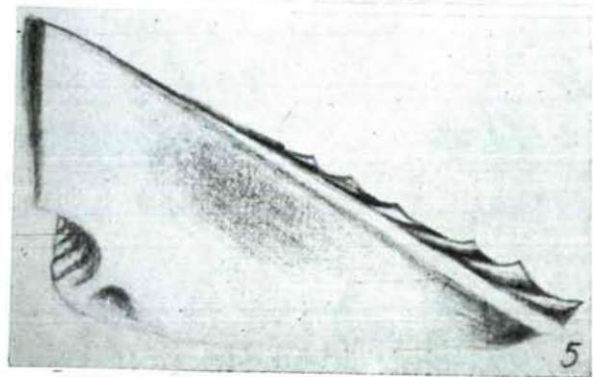
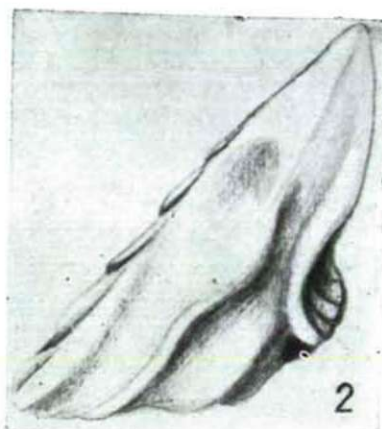
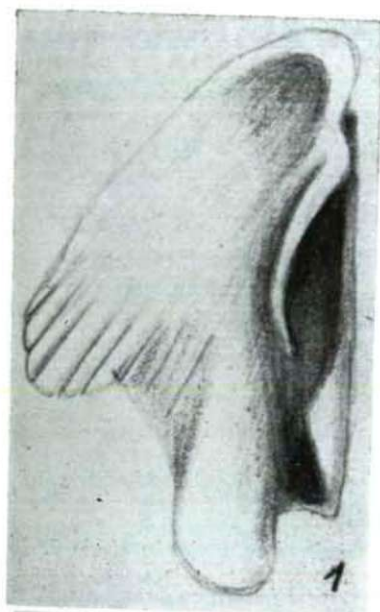
Balanus amphitrite formosanus HIRO

Turkmenistan, Karakum-desert. The opercular valves demonstrating six exemplares are rather variable but agree with the opercular valves of the recent exemplares (Table I. Fig. 1.).

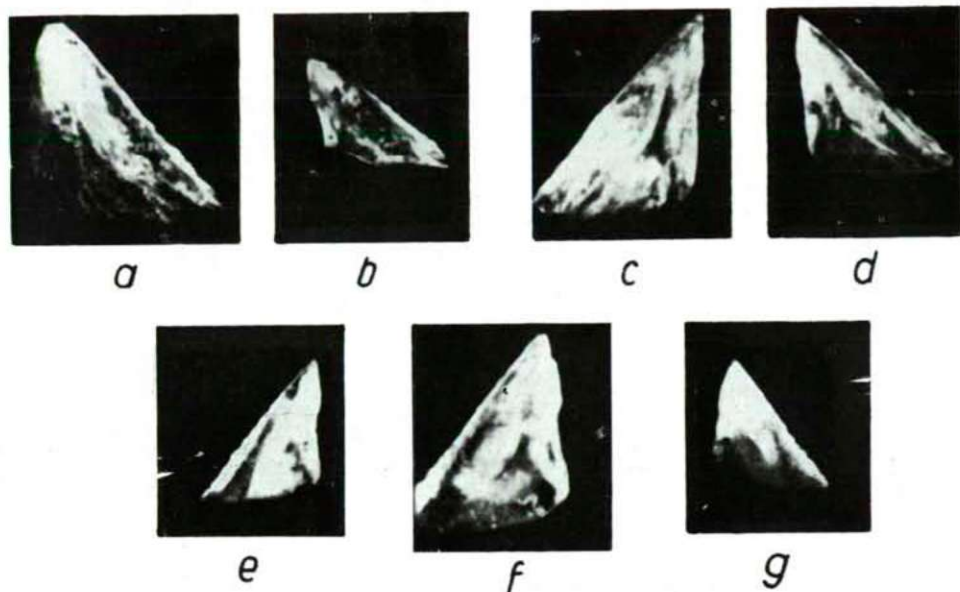
Balanus amphitrite merklini n. ssp.

Holotype: the largest scutum.

Turkmenistan, Karakum-desert. Three scuta were found. They are differently conserved and has different size, they originate evidently from three different exemplares. The inner surface of the scutum is very characteristic. The outer surface is only transversally striated. Their height and width are approximately the same. The occludent edges are strikingly marked. The basic edge is wavy. The sulcus of the apex is expressed. The adductor-crest is wavy and does not reach to the basis. Between the depressor-hole and the adductor-crest there is a hairpin-like wrinkle, which is characteristic only to this subspecies. Between the hairpin-like emergency and the adductor-crest



there are some minute, inclined wrinkles. The hairpin-like emergency approaches the basis-edge but does not reach it. The part towards the *apex* reaches to the middle of the tergale hole of articulation. Development of the *adductor* hole is customary. The new subspecies is denominated after Dr. MERKLIN, the collector. (Table I. Fig. 3. and Table II. Fig. c—d).



Balanus balanoides (LINNÉ)

Turkmenistan, Karakum-desert. It is a nordic element. Two *scuta* were found. The *scutum* is wider than high. The tergale hole of articulation is small. The *adductor*-crest is not expressed. The occludent edges are strikingly marked. (Table I. Fig. 5.)

The species and subspecies demonstrated till now are the followings:

Table I.

1. *B. amphitrite formosanus*, tergum.
2. *B. provisoricus*, scutum.
3. *B. amphitrite merklini*, scutum.
4. *B. amphitrite karakumiensis*, scutum.
5. *B. balanoides*, scutum.

Author's original drawings.

Table II.

- a—b) Two *scuta* of *B. provisoricus*.
- c—d) Two *scuta* of *B. amphitrite merklini*.
- e—g) Three *scuta* of *B. amphitrite karakumiensis*.

Foto J. ZSOLT.

name of species and subspecies resp.	recent	fossile
<i>B. amphitrite communis</i>	p	p
<i>niveus</i>	e	e
<i>helenae</i>	+	r
<i>formosanus</i>	e	e
<i>cirratus</i>	p	p
<i>merklini</i>	+	r
<i>karakumiensis</i>	+	r
<i>albicostatus</i>	e	e
<i>B. rostratus</i>	r	e
<i>improvisus</i>	e	e
<i>concavus</i>	r	e
<i>polyporus</i>	+	c
<i>provisoricus</i>	+	c
<i>balanoides</i>	e	e

Key to the signs used: c = conservative
 e = elastic
 p = progressive
 r = regressive
 + = extinct

References

1. KOLOSVÁRY, G.: Enumeration des Balanides fossiles du Turkestan et de l'Usbekistan. Bull. Mens. Soc. Linn. Lyon 30 4 1961. p. 78.
2. KOLOSVÁRY, G.: Uisz-Urt neogén Balanidák. Lectur at the Academy May, 1962. Akad. Közl. V. 3/4. (p. 203—216).
3. KOLOSVÁRY, G.: Einige interessante Balanus-Funde aus der Burdigalien-Stufe von Turkmenistan. Acta Biol. Szeged 7 (1—2) 1961.